



U.S. Department of Energy
Energy Efficiency and Renewable Energy

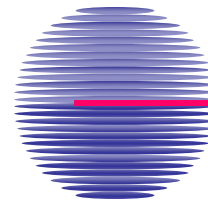
federal energy management program

Economic Evaluation of DER

Edward J. Henderson

Energy Options

Albuquerque, New Mexico





Do you have an Energy Strategy?

- Popular Press -- “ ... competition is a good thing”
- Utility Outage -- Availability (at your TOU)
- Needs Changing -- Changing Needs
- Budget Cycle -- Hidden Cash

Energy is an increasing component of enterprise cost and can contribute to business risk.



Popular Press – EEI Action Alerts

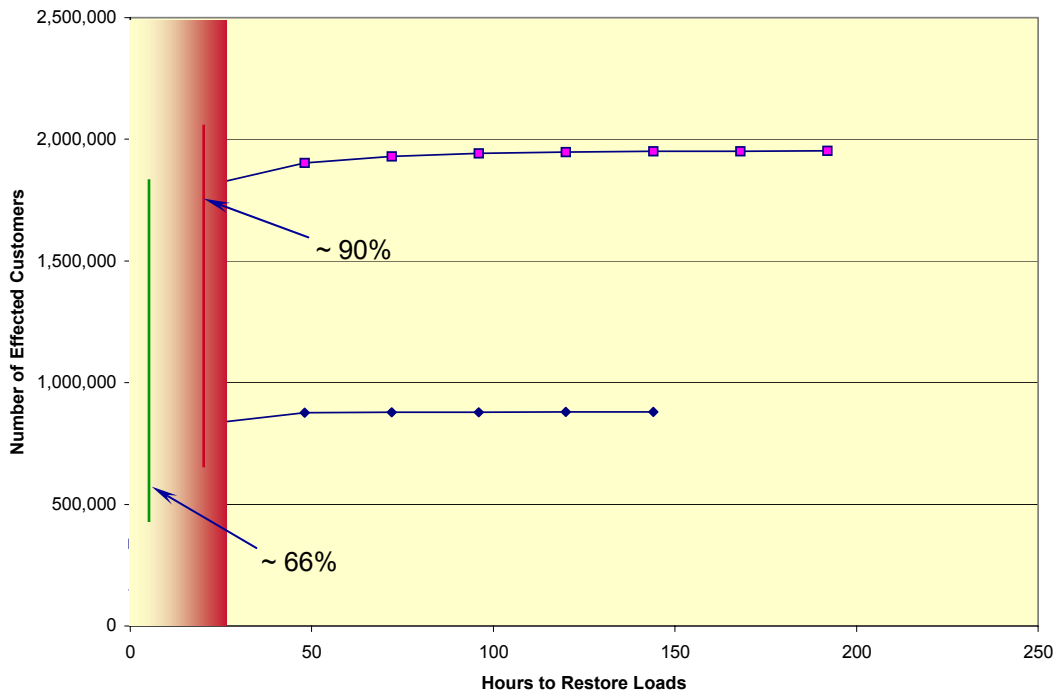
- Indiana URC approves PSI Power Purchase from Merchant Affiliate
- Illinois Lawmakers approve bill to extend freeze on residential Rates
- Nevada PUC denies 27% of SPP's deferred Energy Costs

- ✓ Energy issues are common in Regulated and un-Regulated regions.
- ✓ Pricing policy can be independent of the volume of energy consumed.



Outage Risk Mitigation

PG&E 2002
Major Events 1, and 2



Risk Tolerance

- Safety and Security
- Premium Load interruption
- Utility Support



Valuation { f(Drivers) }

- ✓ Energy is an increasing component of enterprise cost and can contribute to business risk.
- ✓ Energy issues are common in Regulated and un-Regulated regions.
- ✓ Pricing policy can be independent of the volume of energy consumed.

-- CHP Value	Facility integrated, on-site generation of Energy
-- Fuel Alliance	Tariff-based Pricing
-- Outage Risk Mitigation	Physical and Financial Hedge as part of Demand-side and Supply-side Energy Independence.



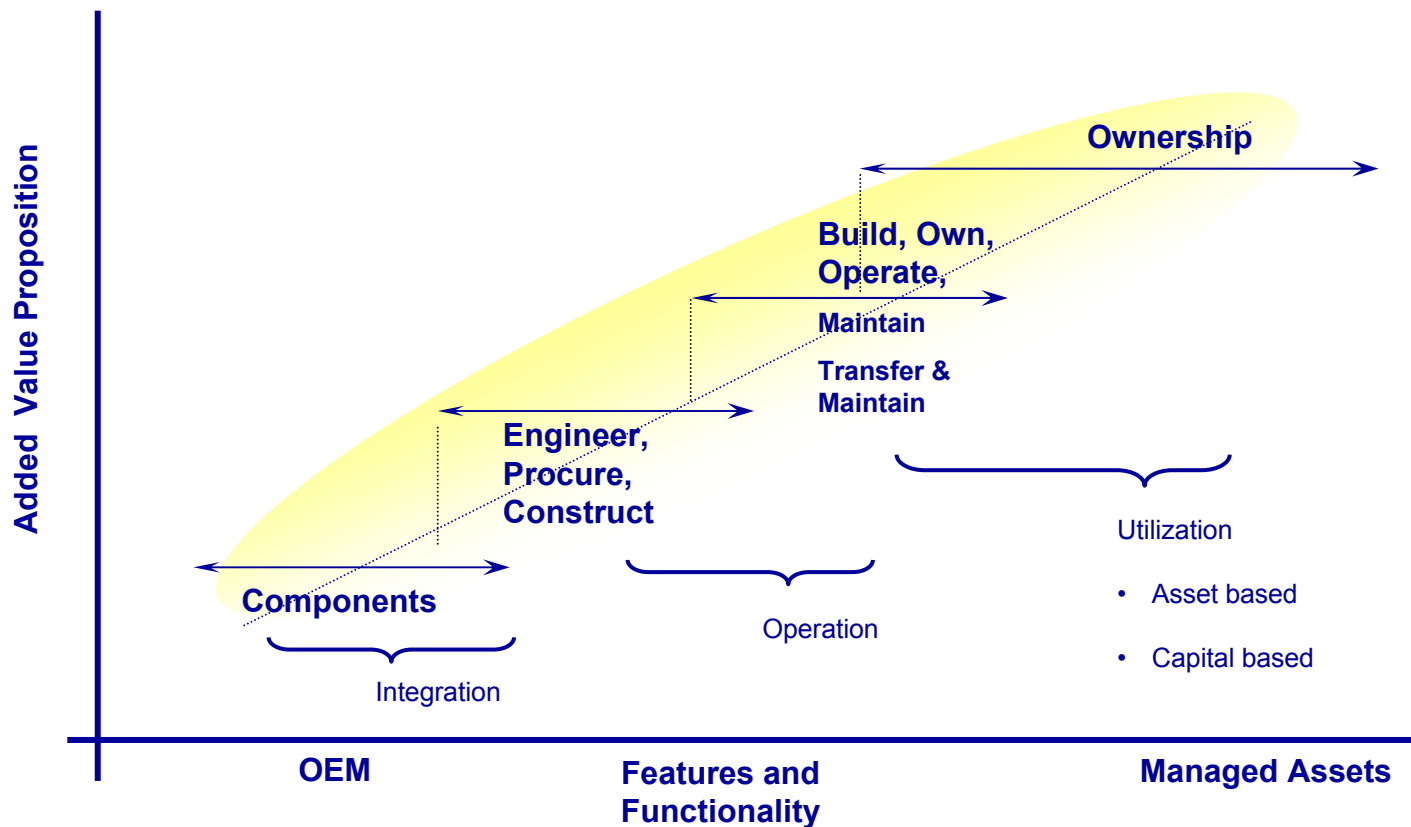
Valuation Process Template

- Establish a basis of comparison relative to the Status Quo.
- Prospective and Future Energy Requirements.
- Integrate the Business and Operating Environment.
- Summarize the likely Financial Consequences.

Establish an Energy Team



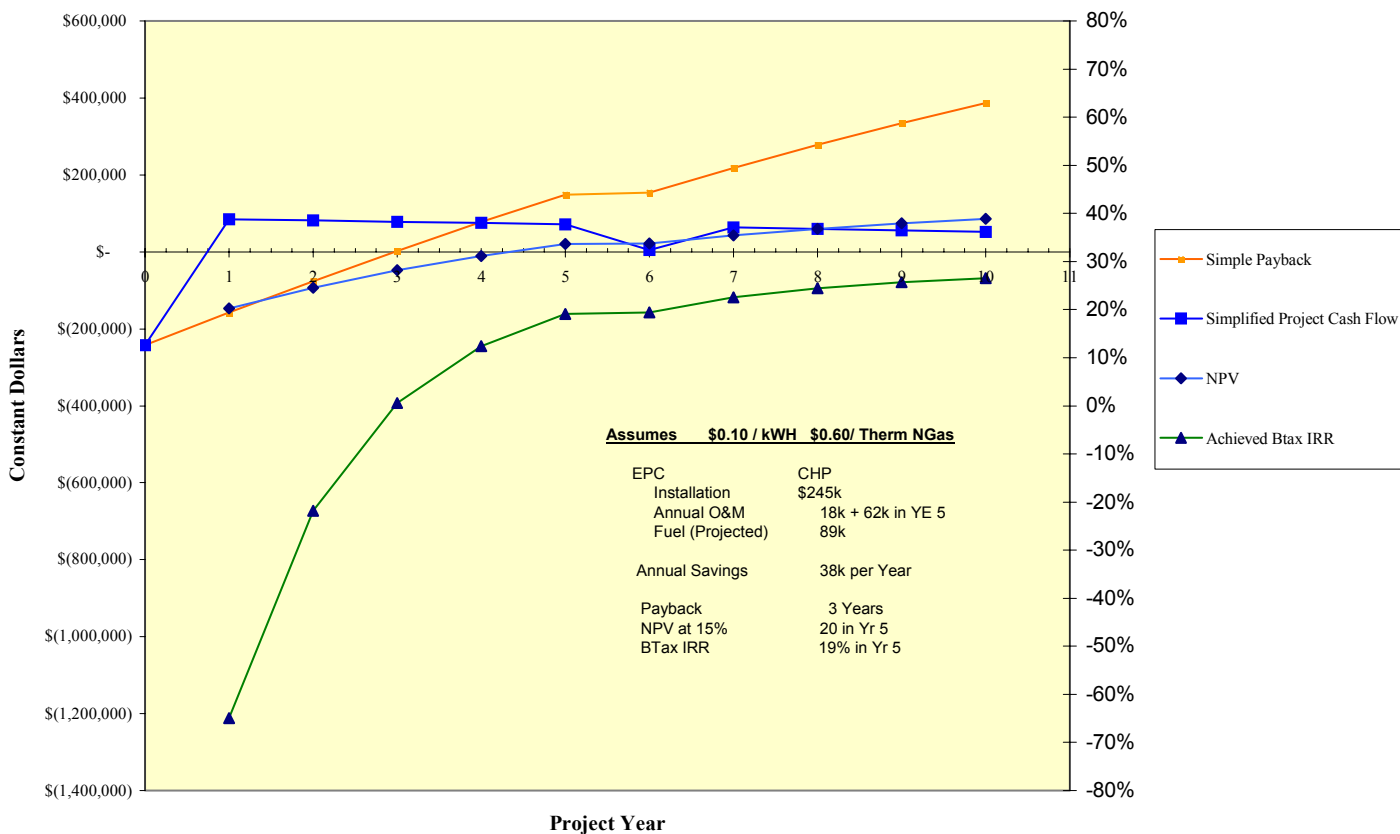
Energy (Implementation)Team





Financial Consequences

Project Economics --- 250 kW IC with Heat Recovery





Summary

- Legitimize your energy strategy as part of your annual business planning cycle
- Establish an “Energy Team” to assure a complete solution
- Augment your Team with Professional Energy Consultants
- Consider an RFP as part of the procurement process.
- Make your decision audit-able .. Keep clear records of the criteria used.

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